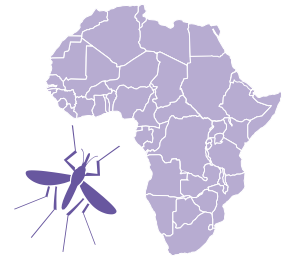


Malaria *and* Pregnancy



Frequently Asked Questions



Why is malaria in pregnancy dangerous?

Malaria is a significant contributing factor to anemia. If severe, anemia puts women at risk of hemorrhage and death. Maternal anemia increases the risk of premature delivery and a low birthweight baby. Anemia is associated with low nutrition levels, weakness, and breathing difficulties. In Africa, 60 percent of pregnant women are anemic and about 15 percent of women develop severe anemia during their first pregnancy. Low birthweight babies are much less likely to survive their first year of life. Other problems among pregnant women with malaria include complications in the central nervous system, kidney failure, and the buildup of fluid in the lungs. In some cases, miscarriage and stillbirths can result.

Pregnancy causes many physiological changes, including to the immune system. Such alterations make pregnant women more susceptible to infections. In fact, studies have shown that when women are pregnant, they are four times as likely to get sick from malaria and twice as likely to die from the disease.

How widespread is the problem?

An estimated 24 million African women are at risk for malaria infection every year. However, rates of malarial infection in pregnant women vary widely within and among countries. Pregnant women in areas where malaria transmission is low—and who therefore have little immunity—are most susceptible to contracting severe cases of the disease. This is probably because people living in areas where rates of malaria are high eventually develop greater immunity to the disease than people in areas where malaria outbreaks are less frequent. Nonetheless, even women residing in areas where rates of malaria are high are at risk. Research has shown that the health-related effects of malaria in pregnancy depend largely on a mother's level of immunity and her age. It is therefore more common for women to contract malaria during their first pregnancy—which in Africa often occurs among teenagers and young women—than during second or later pregnancies.

What is the impact of malaria infection on the fetus?

The health of the fetus is at great risk from the presence of malaria during pregnancy. The major problem is that malaria parasites infect the red blood cells in the placenta, which provides a protected space for parasites to reproduce and impair the passage of nutrients from the placenta to the fetus, thus contributing to low birthweight. This problem can occur even in pregnant women showing no clear symptoms.

Malaria parasites in the mother's blood and placenta can also pass to the fetus through the umbilical cord. In most cases, fetuses do not develop congenital malaria infections themselves. This is probably because many women in areas with high rates of malaria have some malaria antibodies, which they pass on to their fetuses. Even though the fetus may not contract malaria itself, the negative health impacts caused by maternal anemia still apply.

How can the adverse effects of malaria in pregnancy be prevented?

The most promising new strategy to date in areas of high malaria transmission is two treatment doses of sulfadoxine-pyrimethamine (SP) given to all pregnant women even without symptoms. This can significantly reduce the negative consequences of malaria during pregnancy. This treatment, Intermittent Presumptive Treatment (IPT), is safe, effective, deliverable and cost-effective. Even one dose of SP has been shown to reduce severe maternal anemia and placental malaria. In populations where HIV risk is high, more doses may be necessary throughout pregnancy. Currently the drug of choice is SP, but new drugs are being developed and tested and may also prove effective in the future.

In addition, recent research has examined the effectiveness of using insecticide-treated bed nets to prevent malaria in pregnant women. Preliminary results indicate that women using such bed nets are less likely to become anemic or develop malaria parasite infections. (See the enclosed research summaries for more details.)

Is it safe to take anti-malarial drugs during pregnancy?

Fear that anti-malarial drugs may cause harm to both mother and fetus has often limited their use. However, studies have clearly established that most drugs used to combat the effects of malaria—in particular quinine and sulfadoxine-pyrimethamine—do not cause toxic reactions or other problems. In addition, rates of birth defects, spontaneous abortion, or early delivery do not appear to be affected by drug treatment.

Because malaria in pregnancy is so dangerous, the benefits of prevention and treatment with commonly used anti-malarial drugs far outweigh any potential risks. (It should be noted that the World Health Organization recommends that some specific drugs not be taken during pregnancy either because they have been associated with adverse effects on the baby, or because they have not been sufficiently studied, including halofantrine, tetracycline, doxycycline, and primaquine.)

How can the malaria in pregnancy problem be solved?

Awareness of malaria in pregnancy has grown among policy makers and health providers in recent years, offering hope that strategies to solve the problem will be developed and implemented. Following extensive research and field studies that tested the efficacy of SP in reducing placental malaria and improving pregnancy outcomes, Kenya and Malawi have adopted policies to routinely administer SP to pregnant women attending antenatal clinics. (See enclosed research summaries for more information.) It is hoped that other countries will follow suit.

Concerted effort will be needed on several fronts to overcome obstacles to the effective prevention and treatment of malaria in pregnant women. Many women throughout Africa lack access to medical care, in particular high-risk adolescent girls in their first pregnancies. Fear of drugs and the inability of many people to pay for them require more extensive health counseling and financial investment. In addition, drug procurement and distribution systems will have to be strengthened to ensure that a sufficient amount of drugs reach those who need them, particularly in remote areas.

The growing prevalence of HIV infection throughout Africa—where women now account for half of all new infections—poses another significant challenge. Women infected with HIV are much more susceptible to infection with malaria parasites. In turn, malaria-infected HIV-positive women are more likely to give birth to babies at high risk of death. It will be increasingly necessary to integrate treatment of HIV and malaria.



This fact sheet is one of five prepared for the Malaria and Pregnancy Network by the Support for Analysis and Research in Africa (SARA) project.

